

Release notes for ENDF/B Development n-091_Pa.232
evaluation

ENDF
B-VII.dev

April 26, 2017

- **fizcon** Warnings:

1. It is OK for uncertainty to be bigger than value
MAT=9134, MF= 1, MT=458 (1): Big unc

```
ERROR(S) FOUND IN MAT=9134, MF= 1, MT=458
ERROR GREATER THAN VALUE AT COMPONENT # 51
ERROR GREATER THAN VALUE AT COMPONENT # 53
```

2. It is OK for uncertainty to be bigger than value
MAT=9134, MF= 1, MT=458 (2): Big unc

```
ERROR(S) FOUND IN MAT=9134, MF= 1, MT=458
No problems to report
```

- **fudge-4.0** Warnings:

1. Missing a channel with a particular angular momenta combination
resonances / resolved / MultiLevel BreitWigner (Error # 0): missingResonanceChannel

```
WARNING: Missing a channel with angular momenta combination L = 0, J = 0.5 and S = 0.5 for "capture"
```

2. Potential scattering hasn't converted, you need more L's!
resonances / resolved (Error # 1): potentialScatteringNotConverged

```
WARNING: Potential scattering hasn't converged by L=0 at E=21.0 eV, xs[0]/xs[0]=100.0% > 0.1%
```

3. Cross section does not match sum of linked reaction cross sections
crossSectionSum label 0: total (Error # 0): CS Sum.

```
WARNING: Cross section does not match sum of linked reaction cross sections! Max diff: 0.37%
```

4. The ratio of smallest/largest eigenvalue is quite small, possibly leading to numerical instability in downstream codes.
Section 1 (n[multiplicity:'energyDependent', emissionMode:'prompt'] + n[emissionMode:'1 delayed'] + gamma [total fission] [nubar]): / Form 'eval': (Error # 0): Condition num.

```
WARNING: Ratio of smallest/largest eigenvalue (0.000000e+00) is too small
```

5. The ratio of smallest/largest eigenvalue is quite small, possibly leading to numerical instability in downstream codes.
Section 2 (n[multiplicity:'energyDependent', emissionMode:'prompt'] + n[emissionMode:'1 delayed'] + gamma [total fission] [nubar]): / Form 'eval': (Error # 0): Condition num.

```
WARNING: Ratio of smallest/largest eigenvalue (1.516963e-09) is too small
```

6. The ratio of smallest/largest eigenvalue is quite small, possibly leading to numerical instability in downstream codes.
Section 3 (total): / Form 'eval': / Component 0 (Error # 0): Condition num.

```
WARNING: Ratio of smallest/largest eigenvalue (0.000000e+00) is too small
```

7. The ratio of smallest/largest eigenvalue is quite small, possibly leading to numerical instability in downstream codes.
Section 3 (total): / Form 'eval': / Component 1 (Error # 0): Condition num.
- WARNING: Ratio of smallest/largest eigenvalue (0.000000e+00) is too small
8. The ratio of smallest/largest eigenvalue is quite small, possibly leading to numerical instability in downstream codes.
Section 4 (n + Pa232): / Form 'eval': / Component 0 (Error # 0): Condition num.
- WARNING: Ratio of smallest/largest eigenvalue (0.000000e+00) is too small
9. The ratio of smallest/largest eigenvalue is quite small, possibly leading to numerical instability in downstream codes.
Section 4 (n + Pa232): / Form 'eval': / Component 1 (Error # 0): Condition num.
- WARNING: Ratio of smallest/largest eigenvalue (0.000000e+00) is too small
10. The ratio of smallest/largest eigenvalue is quite small, possibly leading to numerical instability in downstream codes.
Section 8 (n[multiplicity:'energyDependent', emissionMode:'prompt'] + n[emissionMode:'1 delayed'] + gamma [total fission]): / Form 'eval': (Error # 0): Condition num.
- WARNING: Ratio of smallest/largest eigenvalue (0.000000e+00) is too small
11. The ratio of smallest/largest eigenvalue is quite small, possibly leading to numerical instability in downstream codes.
Section 10 (n + (Pa232_e1 ->Pa232 + gamma)): / Form 'eval': (Error # 0): Condition num.
- WARNING: Ratio of smallest/largest eigenvalue (2.529663e-09) is too small
12. The ratio of smallest/largest eigenvalue is quite small, possibly leading to numerical instability in downstream codes.
Section 11 (n + (Pa232_c ->Pa232 + gamma)): / Form 'eval': (Error # 0): Condition num.
- WARNING: Ratio of smallest/largest eigenvalue (0.000000e+00) is too small
13. The ratio of smallest/largest eigenvalue is quite small, possibly leading to numerical instability in downstream codes.
Section 12 (Pa233 + gamma): / Form 'eval': (Error # 0): Condition num.
- WARNING: Ratio of smallest/largest eigenvalue (0.000000e+00) is too small
14. The ratio of smallest/largest eigenvalue is quite small, possibly leading to numerical instability in downstream codes.
Section 13 (n + Pa232 [angular distribution]): / Form 'eval': (Error # 1): Condition num.
- WARNING: Ratio of smallest/largest eigenvalue (0.000000e+00) is too small
15. The ratio of smallest/largest eigenvalue is quite small, possibly leading to numerical instability in downstream codes.
Section 14 (n[multiplicity:'energyDependent', emissionMode:'prompt'] + n[emissionMode:'1 delayed'] + gamma [total fission] [spectrum]): / Form 'eval': (Error # 0): Condition num.

WARNING: Ratio of smallest/largest eigenvalue (0.000000e+00) is too small

16. The ratio of smallest/largest eigenvalue is quite small, possibly leading to numerical instability in downstream codes.
Section 15 (n[multiplicity:'energyDependent', emissionMode:'prompt'] + n[emissionMode:'1 delayed'] + gamma [total fission] [spectrum]): / Form 'eval': (Error # 0): Condition num.

WARNING: Ratio of smallest/largest eigenvalue (0.000000e+00) is too small

17. The ratio of smallest/largest eigenvalue is quite small, possibly leading to numerical instability in downstream codes.
Section 16 (n[multiplicity:'energyDependent', emissionMode:'prompt'] + n[emissionMode:'1 delayed'] + gamma [total fission] [spectrum]): / Form 'eval': (Error # 0): Condition num.

WARNING: Ratio of smallest/largest eigenvalue (0.000000e+00) is too small

18. The ratio of smallest/largest eigenvalue is quite small, possibly leading to numerical instability in downstream codes.
Section 17 (n[multiplicity:'energyDependent', emissionMode:'prompt'] + n[emissionMode:'1 delayed'] + gamma [total fission] [spectrum]): / Form 'eval': (Error # 0): Condition num.

WARNING: Ratio of smallest/largest eigenvalue (0.000000e+00) is too small

• fudge-4.0 Errors:

1. Energy range of data set does not match cross section range
reaction label 2: n + (Pa232_c ->Pa232 + gamma) / Product: Pa232_c / Decay product: gamma_a / Multiplicity: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (170000.0 -> 20000000.0) vs (110958.0 -> 20000000.0)

2. Energy range of data set does not match cross section range
reaction label 2: n + (Pa232_c ->Pa232 + gamma) / Product: Pa232_c / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (170000.0 -> 20000000.0) vs (110958.0 -> 20000000.0)

3. Calculated and tabulated Q values disagree.
reaction label 3: n[multiplicity:'2'] + Pa231 + gamma (Error # 0): Q mismatch

WARNING: Calculated and tabulated Q-values disagree: -5801684.297454834 eV vs -5.5492e6 eV!

4. Energy range of data set does not match cross section range
reaction label 3: n[multiplicity:'2'] + Pa231 + gamma / Product: gamma_a / Multiplicity: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (6000000.0 -> 20000000.0) vs (5573320.0 -> 20000000.0)

5. Energy range of data set does not match cross section range
reaction label 3: n[multiplicity:'2'] + Pa231 + gamma / Product: gamma_a / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (6000000.0 -> 20000000.0) vs (5573320.0 -> 20000000.0)

6. Energy range of data set does not match cross section range
reaction label 3: n[multiplicity:'2'] + Pa231 + gamma / Product: gamma_b / Multiplicity: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (6000000.0 -> 20000000.0) vs (5573320.0 -> 20000000.0)

7. Energy range of data set does not match cross section range
reaction label 3: n[multiplicity:'2'] + Pa231 + gamma / Product: gamma_b / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (6000000.0 -> 20000000.0) vs (5573320.0 -> 20000000.0)

8. Energy range of data set does not match cross section range
reaction label 3: n[multiplicity:'2'] + Pa231 + gamma / Product: gamma_c / Multiplicity: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (6000000.0 -> 20000000.0) vs (5573320.0 -> 20000000.0)

9. Energy range of data set does not match cross section range
reaction label 3: n[multiplicity:'2'] + Pa231 + gamma / Product: gamma_c / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (6000000.0 -> 20000000.0) vs (5573320.0 -> 20000000.0)

10. Energy range of data set does not match cross section range
reaction label 3: n[multiplicity:'2'] + Pa231 + gamma / Product: gamma_d / Multiplicity: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (6000000.0 -> 20000000.0) vs (5573320.0 -> 20000000.0)

11. Energy range of data set does not match cross section range
reaction label 3: n[multiplicity:'2'] + Pa231 + gamma / Product: gamma_d / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (6000000.0 -> 20000000.0) vs (5573320.0 -> 20000000.0)

12. Energy range of data set does not match cross section range
reaction label 3: n[multiplicity:'2'] + Pa231 + gamma / Product: gamma_e / Multiplicity: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (6000000.0 -> 20000000.0) vs (5573320.0 -> 20000000.0)

13. Energy range of data set does not match cross section range
reaction label 3: n[multiplicity:'2'] + Pa231 + gamma / Product: gamma_e / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (6000000.0 -> 20000000.0) vs (5573320.0 -> 20000000.0)

14. Energy range of data set does not match cross section range
reaction label 3: n[multiplicity:'2'] + Pa231 + gamma / Product: gamma_f / Multiplicity: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (6000000.0 -> 20000000.0) vs (5573320.0 -> 20000000.0)

15. Energy range of data set does not match cross section range
reaction label 3: n[multiplicity:'2'] + Pa231 + gamma / Product: gamma_f / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (6000000.0 -> 20000000.0) vs (5573320.0 -> 20000000.0)

16. Energy range of data set does not match cross section range
reaction label 3: n[multiplicity:'2'] + Pa231 + gamma / Product: gamma_g / Multiplicity: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (6000000.0 -> 20000000.0) vs (5573320.0 -> 20000000.0)

17. Energy range of data set does not match cross section range
reaction label 3: n[multiplicity:'2'] + Pa231 + gamma / Product: gamma_g / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (6000000.0 -> 20000000.0) vs (5573320.0 -> 20000000.0)

18. Energy range of data set does not match cross section range
reaction label 3: n[multiplicity:'2'] + Pa231 + gamma / Product: gamma_h / Multiplicity: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (6000000.0 -> 20000000.0) vs (5573320.0 -> 20000000.0)

19. Energy range of data set does not match cross section range
reaction label 3: n[multiplicity:'2'] + Pa231 + gamma / Product: gamma_h / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (6000000.0 -> 20000000.0) vs (5573320.0 -> 20000000.0)

20. Energy range of data set does not match cross section range
reaction label 3: n[multiplicity:'2'] + Pa231 + gamma / Product: gamma_i / Multiplicity: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (6000000.0 -> 20000000.0) vs (5573320.0 -> 20000000.0)

21. Energy range of data set does not match cross section range
reaction label 3: n[multiplicity:'2'] + Pa231 + gamma / Product: gamma_i / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (6000000.0 -> 20000000.0) vs (5573320.0 -> 20000000.0)

22. Energy range of data set does not match cross section range
reaction label 3: n[multiplicity:'2'] + Pa231 + gamma / Product: gamma_j / Multiplicity: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (6000000.0 -> 20000000.0) vs (5573320.0 -> 20000000.0)

23. Energy range of data set does not match cross section range
reaction label 3: n[multiplicity:'2'] + Pa231 + gamma / Product: gamma_j / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (6000000.0 -> 20000000.0) vs (5573320.0 -> 20000000.0)

24. Energy range of data set does not match cross section range
reaction label 3: n[multiplicity:'2'] + Pa231 + gamma / Product: gamma_k / Multiplicity: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (6000000.0 -> 20000000.0) vs (5573320.0 -> 20000000.0)

25. Energy range of data set does not match cross section range
reaction label 3: n[multiplicity:'2'] + Pa231 + gamma / Product: gamma_k / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (6000000.0 -> 20000000.0) vs (5573320.0 -> 20000000.0)

26. Energy range of data set does not match cross section range
reaction label 3: n[multiplicity:'2'] + Pa231 + gamma / Product: gamma_l / Multiplicity: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (6000000.0 -> 20000000.0) vs (5573320.0 -> 20000000.0)

27. Energy range of data set does not match cross section range
reaction label 3: n[multiplicity:'2'] + Pa231 + gamma / Product: gamma_l / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (6000000.0 -> 20000000.0) vs (5573320.0 -> 20000000.0)

28. Energy range of data set does not match cross section range
reaction label 3: n[multiplicity:'2'] + Pa231 + gamma / Product: gamma_m / Multiplicity: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (6500000.0 -> 20000000.0) vs (5573320.0 -> 20000000.0)

29. Energy range of data set does not match cross section range
reaction label 3: n[multiplicity:'2'] + Pa231 + gamma / Product: gamma_m / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (6500000.0 -> 20000000.0) vs (5573320.0 -> 20000000.0)

30. Energy range of data set does not match cross section range
reaction label 3: n[multiplicity:'2'] + Pa231 + gamma / Product: gamma_n / Multiplicity: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (6500000.0 -> 20000000.0) vs (5573320.0 -> 20000000.0)

31. Energy range of data set does not match cross section range
reaction label 3: n[multiplicity:'2'] + Pa231 + gamma / Product: gamma_n / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (6500000.0 -> 20000000.0) vs (5573320.0 -> 20000000.0)

32. Energy range of data set does not match cross section range
reaction label 3: n[multiplicity:'2'] + Pa231 + gamma / Product: gamma_o / Multiplicity: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (6000000.0 -> 20000000.0) vs (5573320.0 -> 20000000.0)

33. Energy range of data set does not match cross section range
reaction label 3: n[multiplicity:'2'] + Pa231 + gamma / Product: gamma_o / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)
- WARNING: Domain doesn't match the cross section domain: (6000000.0 -> 20000000.0) vs (5573320.0 -> 20000000.0)
34. Energy range of data set does not match cross section range
reaction label 3: n[multiplicity:'2'] + Pa231 + gamma / Product: gamma_p / Multiplicity: (Error # 0): Domain mismatch (a)
- WARNING: Domain doesn't match the cross section domain: (6000000.0 -> 20000000.0) vs (5573320.0 -> 20000000.0)
35. Energy range of data set does not match cross section range
reaction label 3: n[multiplicity:'2'] + Pa231 + gamma / Product: gamma_p / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)
- WARNING: Domain doesn't match the cross section domain: (6000000.0 -> 20000000.0) vs (5573320.0 -> 20000000.0)
36. Energy range of data set does not match cross section range
reaction label 3: n[multiplicity:'2'] + Pa231 + gamma / Product: gamma_q / Multiplicity: (Error # 0): Domain mismatch (a)
- WARNING: Domain doesn't match the cross section domain: (6000000.0 -> 20000000.0) vs (5573320.0 -> 20000000.0)
37. Energy range of data set does not match cross section range
reaction label 3: n[multiplicity:'2'] + Pa231 + gamma / Product: gamma_q / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)
- WARNING: Domain doesn't match the cross section domain: (6000000.0 -> 20000000.0) vs (5573320.0 -> 20000000.0)
38. Energy range of data set does not match cross section range
reaction label 3: n[multiplicity:'2'] + Pa231 + gamma / Product: gamma_r / Multiplicity: (Error # 0): Domain mismatch (a)
- WARNING: Domain doesn't match the cross section domain: (6000000.0 -> 20000000.0) vs (5573320.0 -> 20000000.0)
39. Energy range of data set does not match cross section range
reaction label 3: n[multiplicity:'2'] + Pa231 + gamma / Product: gamma_r / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)
- WARNING: Domain doesn't match the cross section domain: (6000000.0 -> 20000000.0) vs (5573320.0 -> 20000000.0)
40. Energy range of data set does not match cross section range
reaction label 3: n[multiplicity:'2'] + Pa231 + gamma / Product: gamma_s / Multiplicity: (Error # 0): Domain mismatch (a)
- WARNING: Domain doesn't match the cross section domain: (6000000.0 -> 20000000.0) vs (5573320.0 -> 20000000.0)
41. Energy range of data set does not match cross section range
reaction label 3: n[multiplicity:'2'] + Pa231 + gamma / Product: gamma_s / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)
- WARNING: Domain doesn't match the cross section domain: (6000000.0 -> 20000000.0) vs (5573320.0 -> 20000000.0)

42. Energy range of data set does not match cross section range
reaction label 3: n[multiplicity:'2'] + Pa231 + gamma / Product: gamma_t / Multiplicity: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (6000000.0 -> 20000000.0) vs (5573320.0 -> 20000000.0)

43. Energy range of data set does not match cross section range
reaction label 3: n[multiplicity:'2'] + Pa231 + gamma / Product: gamma_t / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (6000000.0 -> 20000000.0) vs (5573320.0 -> 20000000.0)

44. Energy range of data set does not match cross section range
reaction label 3: n[multiplicity:'2'] + Pa231 + gamma / Product: gamma_u / Multiplicity: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (6000000.0 -> 20000000.0) vs (5573320.0 -> 20000000.0)

45. Energy range of data set does not match cross section range
reaction label 3: n[multiplicity:'2'] + Pa231 + gamma / Product: gamma_u / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (6000000.0 -> 20000000.0) vs (5573320.0 -> 20000000.0)

46. Energy range of data set does not match cross section range
reaction label 3: n[multiplicity:'2'] + Pa231 + gamma / Product: gamma_v / Multiplicity: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (6000000.0 -> 20000000.0) vs (5573320.0 -> 20000000.0)

47. Energy range of data set does not match cross section range
reaction label 3: n[multiplicity:'2'] + Pa231 + gamma / Product: gamma_v / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (6000000.0 -> 20000000.0) vs (5573320.0 -> 20000000.0)

48. Energy range of data set does not match cross section range
reaction label 3: n[multiplicity:'2'] + Pa231 + gamma / Product: gamma_w / Multiplicity: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (6500000.0 -> 20000000.0) vs (5573320.0 -> 20000000.0)

49. Energy range of data set does not match cross section range
reaction label 3: n[multiplicity:'2'] + Pa231 + gamma / Product: gamma_w / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (6500000.0 -> 20000000.0) vs (5573320.0 -> 20000000.0)

50. Energy range of data set does not match cross section range
reaction label 3: n[multiplicity:'2'] + Pa231 + gamma / Product: gamma_x / Multiplicity: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (6000000.0 -> 20000000.0) vs (5573320.0 -> 20000000.0)

51. Energy range of data set does not match cross section range
reaction label 3: n[multiplicity:'2'] + Pa231 + gamma / Product: gamma_x / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (6000000.0 -> 20000000.0) vs (5573320.0 -> 20000000.0)

52. Energy range of data set does not match cross section range
reaction label 3: n[multiplicity:'2'] + Pa231 + gamma / Product: gamma_y / Multiplicity: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (6000000.0 -> 20000000.0) vs (5573320.0 -> 20000000.0)

53. Energy range of data set does not match cross section range
reaction label 3: n[multiplicity:'2'] + Pa231 + gamma / Product: gamma_y / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (6000000.0 -> 20000000.0) vs (5573320.0 -> 20000000.0)

54. Energy range of data set does not match cross section range
reaction label 3: n[multiplicity:'2'] + Pa231 + gamma / Product: gamma_z / Multiplicity: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (6000000.0 -> 20000000.0) vs (5573320.0 -> 20000000.0)

55. Energy range of data set does not match cross section range
reaction label 3: n[multiplicity:'2'] + Pa231 + gamma / Product: gamma_z / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (6000000.0 -> 20000000.0) vs (5573320.0 -> 20000000.0)

56. Energy range of data set does not match cross section range
reaction label 3: n[multiplicity:'2'] + Pa231 + gamma / Product: gamma_aa / Multiplicity: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (6000000.0 -> 20000000.0) vs (5573320.0 -> 20000000.0)

57. Energy range of data set does not match cross section range
reaction label 3: n[multiplicity:'2'] + Pa231 + gamma / Product: gamma_aa / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (6000000.0 -> 20000000.0) vs (5573320.0 -> 20000000.0)

58. Energy range of data set does not match cross section range
reaction label 3: n[multiplicity:'2'] + Pa231 + gamma / Product: gamma_ab / Multiplicity: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (6000000.0 -> 20000000.0) vs (5573320.0 -> 20000000.0)

59. Energy range of data set does not match cross section range
reaction label 3: n[multiplicity:'2'] + Pa231 + gamma / Product: gamma_ab / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (6000000.0 -> 20000000.0) vs (5573320.0 -> 20000000.0)

60. Energy range of data set does not match cross section range
reaction label 3: n[multiplicity:'2'] + Pa231 + gamma / Product: gamma_ac / Multiplicity: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (6000000.0 -> 20000000.0) vs (5573320.0 -> 20000000.0)

61. Energy range of data set does not match cross section range
reaction label 3: n[multiplicity:'2'] + Pa231 + gamma / Product: gamma_ac / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (6000000.0 -> 20000000.0) vs (5573320.0 -> 20000000.0)

62. Energy range of data set does not match cross section range
reaction label 3: n[multiplicity:'2'] + Pa231 + gamma / Product: gamma_ad / Multiplicity: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (6000000.0 -> 20000000.0) vs (5573320.0 -> 20000000.0)

63. Energy range of data set does not match cross section range
reaction label 3: n[multiplicity:'2'] + Pa231 + gamma / Product: gamma_ad / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (6000000.0 -> 20000000.0) vs (5573320.0 -> 20000000.0)

64. Energy range of data set does not match cross section range
reaction label 3: n[multiplicity:'2'] + Pa231 + gamma / Product: gamma_ae / Multiplicity: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (6000000.0 -> 20000000.0) vs (5573320.0 -> 20000000.0)

65. Energy range of data set does not match cross section range
reaction label 3: n[multiplicity:'2'] + Pa231 + gamma / Product: gamma_ae / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (6000000.0 -> 20000000.0) vs (5573320.0 -> 20000000.0)

66. Energy range of data set does not match cross section range
reaction label 3: n[multiplicity:'2'] + Pa231 + gamma / Product: gamma_af / Multiplicity: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (6000000.0 -> 20000000.0) vs (5573320.0 -> 20000000.0)

67. Energy range of data set does not match cross section range
reaction label 3: n[multiplicity:'2'] + Pa231 + gamma / Product: gamma_af / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (6000000.0 -> 20000000.0) vs (5573320.0 -> 20000000.0)

68. Energy range of data set does not match cross section range
reaction label 3: n[multiplicity:'2'] + Pa231 + gamma / Product: gamma_ag / Multiplicity: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (6000000.0 -> 20000000.0) vs (5573320.0 -> 20000000.0)

69. Energy range of data set does not match cross section range
reaction label 3: n[multiplicity:2] + Pa231 + gamma / Product: gamma_ag / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (6000000.0 -> 20000000.0) vs (5573320.0 -> 20000000.0)

70. Energy range of data set does not match cross section range
reaction label 3: n[multiplicity:2] + Pa231 + gamma / Product: gamma_ah / Multiplicity: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (6000000.0 -> 20000000.0) vs (5573320.0 -> 20000000.0)

71. Energy range of data set does not match cross section range
reaction label 3: n[multiplicity:2] + Pa231 + gamma / Product: gamma_ah / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (6000000.0 -> 20000000.0) vs (5573320.0 -> 20000000.0)

72. Energy range of data set does not match cross section range
reaction label 3: n[multiplicity:2] + Pa231 + gamma / Product: gamma_ai / Multiplicity: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (6000000.0 -> 20000000.0) vs (5573320.0 -> 20000000.0)

73. Energy range of data set does not match cross section range
reaction label 3: n[multiplicity:2] + Pa231 + gamma / Product: gamma_ai / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (6000000.0 -> 20000000.0) vs (5573320.0 -> 20000000.0)

74. Energy range of data set does not match cross section range
reaction label 3: n[multiplicity:2] + Pa231 + gamma / Product: gamma_aj / Multiplicity: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (6000000.0 -> 20000000.0) vs (5573320.0 -> 20000000.0)

75. Energy range of data set does not match cross section range
reaction label 3: n[multiplicity:2] + Pa231 + gamma / Product: gamma_aj / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (6000000.0 -> 20000000.0) vs (5573320.0 -> 20000000.0)

76. Energy range of data set does not match cross section range
reaction label 3: n[multiplicity:2] + Pa231 + gamma / Product: gamma_ak / Multiplicity: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (6000000.0 -> 20000000.0) vs (5573320.0 -> 20000000.0)

77. Energy range of data set does not match cross section range
reaction label 3: n[multiplicity:2] + Pa231 + gamma / Product: gamma_ak / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (6000000.0 -> 20000000.0) vs (5573320.0 -> 20000000.0)

78. Energy range of data set does not match cross section range
reaction label 3: n[multiplicity:'2'] + Pa231 + gamma / Product: gamma_al / Multiplicity: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (6000000.0 -> 20000000.0) vs (5573320.0 -> 20000000.0)

79. Energy range of data set does not match cross section range
reaction label 3: n[multiplicity:'2'] + Pa231 + gamma / Product: gamma_al / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (6000000.0 -> 20000000.0) vs (5573320.0 -> 20000000.0)

80. Energy range of data set does not match cross section range
reaction label 3: n[multiplicity:'2'] + Pa231 + gamma / Product: gamma_am / Multiplicity: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (6000000.0 -> 20000000.0) vs (5573320.0 -> 20000000.0)

81. Energy range of data set does not match cross section range
reaction label 3: n[multiplicity:'2'] + Pa231 + gamma / Product: gamma_am / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (6000000.0 -> 20000000.0) vs (5573320.0 -> 20000000.0)

82. Energy range of data set does not match cross section range
reaction label 3: n[multiplicity:'2'] + Pa231 + gamma / Product: gamma_an / Multiplicity: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (6000000.0 -> 20000000.0) vs (5573320.0 -> 20000000.0)

83. Energy range of data set does not match cross section range
reaction label 3: n[multiplicity:'2'] + Pa231 + gamma / Product: gamma_an / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (6000000.0 -> 20000000.0) vs (5573320.0 -> 20000000.0)

84. Energy range of data set does not match cross section range
reaction label 3: n[multiplicity:'2'] + Pa231 + gamma / Product: gamma_ao / Multiplicity: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (6000000.0 -> 20000000.0) vs (5573320.0 -> 20000000.0)

85. Energy range of data set does not match cross section range
reaction label 3: n[multiplicity:'2'] + Pa231 + gamma / Product: gamma_ao / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (6000000.0 -> 20000000.0) vs (5573320.0 -> 20000000.0)

86. Energy range of data set does not match cross section range
reaction label 3: n[multiplicity:'2'] + Pa231 + gamma / Product: gamma_ap / Multiplicity: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (6500000.0 -> 20000000.0) vs (5573320.0 -> 20000000.0)

87. Energy range of data set does not match cross section range
reaction label 3: n[multiplicity:'2'] + Pa231 + gamma / Product: gamma_ap / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (6500000.0 -> 20000000.0) vs (5573320.0 -> 20000000.0)

88. Energy range of data set does not match cross section range
reaction label 3: n[multiplicity:'2'] + Pa231 + gamma / Product: gamma_aq / Multiplicity: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (6000000.0 -> 20000000.0) vs (5573320.0 -> 20000000.0)

89. Energy range of data set does not match cross section range
reaction label 3: n[multiplicity:'2'] + Pa231 + gamma / Product: gamma_aq / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (6000000.0 -> 20000000.0) vs (5573320.0 -> 20000000.0)

90. Energy range of data set does not match cross section range
reaction label 3: n[multiplicity:'2'] + Pa231 + gamma / Product: gamma_ar / Multiplicity: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (6000000.0 -> 20000000.0) vs (5573320.0 -> 20000000.0)

91. Energy range of data set does not match cross section range
reaction label 3: n[multiplicity:'2'] + Pa231 + gamma / Product: gamma_ar / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (6000000.0 -> 20000000.0) vs (5573320.0 -> 20000000.0)

92. Energy range of data set does not match cross section range
reaction label 3: n[multiplicity:'2'] + Pa231 + gamma / Product: gamma_as / Multiplicity: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (6000000.0 -> 20000000.0) vs (5573320.0 -> 20000000.0)

93. Energy range of data set does not match cross section range
reaction label 3: n[multiplicity:'2'] + Pa231 + gamma / Product: gamma_as / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (6000000.0 -> 20000000.0) vs (5573320.0 -> 20000000.0)

94. Energy range of data set does not match cross section range
reaction label 3: n[multiplicity:'2'] + Pa231 + gamma / Product: gamma_at / Multiplicity: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (6500000.0 -> 20000000.0) vs (5573320.0 -> 20000000.0)

95. Energy range of data set does not match cross section range
reaction label 3: n[multiplicity:'2'] + Pa231 + gamma / Product: gamma_at / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (6500000.0 -> 20000000.0) vs (5573320.0 -> 20000000.0)

96. Energy range of data set does not match cross section range
reaction label 3: n[multiplicity:'2'] + Pa231 + gamma / Product: gamma__au / Multiplicity: (Error # 0): Domain mismatch (a)
- WARNING: Domain doesn't match the cross section domain: (6500000.0 -> 20000000.0) vs (5573320.0 -> 20000000.0)
97. Energy range of data set does not match cross section range
reaction label 3: n[multiplicity:'2'] + Pa231 + gamma / Product: gamma__au / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)
- WARNING: Domain doesn't match the cross section domain: (6500000.0 -> 20000000.0) vs (5573320.0 -> 20000000.0)
98. Energy range of data set does not match cross section range
reaction label 3: n[multiplicity:'2'] + Pa231 + gamma / Product: gamma__av / Multiplicity: (Error # 0): Domain mismatch (a)
- WARNING: Domain doesn't match the cross section domain: (6000000.0 -> 20000000.0) vs (5573320.0 -> 20000000.0)
99. Energy range of data set does not match cross section range
reaction label 3: n[multiplicity:'2'] + Pa231 + gamma / Product: gamma__av / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)
- WARNING: Domain doesn't match the cross section domain: (6000000.0 -> 20000000.0) vs (5573320.0 -> 20000000.0)
100. Energy range of data set does not match cross section range
reaction label 3: n[multiplicity:'2'] + Pa231 + gamma / Product: gamma__aw / Multiplicity: (Error # 0): Domain mismatch (a)
- WARNING: Domain doesn't match the cross section domain: (6000000.0 -> 20000000.0) vs (5573320.0 -> 20000000.0)
101. Energy range of data set does not match cross section range
reaction label 3: n[multiplicity:'2'] + Pa231 + gamma / Product: gamma__aw / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)
- WARNING: Domain doesn't match the cross section domain: (6000000.0 -> 20000000.0) vs (5573320.0 -> 20000000.0)
102. Energy range of data set does not match cross section range
reaction label 3: n[multiplicity:'2'] + Pa231 + gamma / Product: gamma__ax / Multiplicity: (Error # 0): Domain mismatch (a)
- WARNING: Domain doesn't match the cross section domain: (6000000.0 -> 20000000.0) vs (5573320.0 -> 20000000.0)
103. Energy range of data set does not match cross section range
reaction label 3: n[multiplicity:'2'] + Pa231 + gamma / Product: gamma__ax / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)
- WARNING: Domain doesn't match the cross section domain: (6000000.0 -> 20000000.0) vs (5573320.0 -> 20000000.0)
104. Energy range of data set does not match cross section range
reaction label 3: n[multiplicity:'2'] + Pa231 + gamma / Product: gamma__ay / Multiplicity: (Error # 0): Domain mismatch (a)
- WARNING: Domain doesn't match the cross section domain: (6000000.0 -> 20000000.0) vs (5573320.0 -> 20000000.0)

105. Energy range of data set does not match cross section range
reaction label 3: n[multiplicity:'2'] + Pa231 + gamma / Product: gamma_ay / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)
- WARNING: Domain doesn't match the cross section domain: (6000000.0 -> 20000000.0) vs (5573320.0 -> 20000000.0)
106. Energy range of data set does not match cross section range
reaction label 3: n[multiplicity:'2'] + Pa231 + gamma / Product: gamma_az / Multiplicity: (Error # 0): Domain mismatch (a)
- WARNING: Domain doesn't match the cross section domain: (6000000.0 -> 20000000.0) vs (5573320.0 -> 20000000.0)
107. Energy range of data set does not match cross section range
reaction label 3: n[multiplicity:'2'] + Pa231 + gamma / Product: gamma_az / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)
- WARNING: Domain doesn't match the cross section domain: (6000000.0 -> 20000000.0) vs (5573320.0 -> 20000000.0)
108. Energy range of data set does not match cross section range
reaction label 3: n[multiplicity:'2'] + Pa231 + gamma / Product: gamma_ba / Multiplicity: (Error # 0): Domain mismatch (a)
- WARNING: Domain doesn't match the cross section domain: (6000000.0 -> 20000000.0) vs (5573320.0 -> 20000000.0)
109. Energy range of data set does not match cross section range
reaction label 3: n[multiplicity:'2'] + Pa231 + gamma / Product: gamma_ba / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)
- WARNING: Domain doesn't match the cross section domain: (6000000.0 -> 20000000.0) vs (5573320.0 -> 20000000.0)
110. Energy range of data set does not match cross section range
reaction label 3: n[multiplicity:'2'] + Pa231 + gamma / Product: gamma_bb / Multiplicity: (Error # 0): Domain mismatch (a)
- WARNING: Domain doesn't match the cross section domain: (6500000.0 -> 20000000.0) vs (5573320.0 -> 20000000.0)
111. Energy range of data set does not match cross section range
reaction label 3: n[multiplicity:'2'] + Pa231 + gamma / Product: gamma_bb / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)
- WARNING: Domain doesn't match the cross section domain: (6500000.0 -> 20000000.0) vs (5573320.0 -> 20000000.0)
112. Energy range of data set does not match cross section range
reaction label 3: n[multiplicity:'2'] + Pa231 + gamma / Product: gamma_bc / Multiplicity: (Error # 0): Domain mismatch (a)
- WARNING: Domain doesn't match the cross section domain: (6000000.0 -> 20000000.0) vs (5573320.0 -> 20000000.0)
113. Energy range of data set does not match cross section range
reaction label 3: n[multiplicity:'2'] + Pa231 + gamma / Product: gamma_bc / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)
- WARNING: Domain doesn't match the cross section domain: (6000000.0 -> 20000000.0) vs (5573320.0 -> 20000000.0)

114. Energy range of data set does not match cross section range
reaction label 3: n[multiplicity:'2'] + Pa231 + gamma / Product: gamma_bd / Multiplicity: (Error # 0): Domain mismatch (a)
- WARNING: Domain doesn't match the cross section domain: (6000000.0 -> 20000000.0) vs (5573320.0 -> 20000000.0)
115. Energy range of data set does not match cross section range
reaction label 3: n[multiplicity:'2'] + Pa231 + gamma / Product: gamma_bd / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)
- WARNING: Domain doesn't match the cross section domain: (6000000.0 -> 20000000.0) vs (5573320.0 -> 20000000.0)
116. Energy range of data set does not match cross section range
reaction label 3: n[multiplicity:'2'] + Pa231 + gamma / Product: gamma_be / Multiplicity: (Error # 0): Domain mismatch (a)
- WARNING: Domain doesn't match the cross section domain: (6000000.0 -> 20000000.0) vs (5573320.0 -> 20000000.0)
117. Energy range of data set does not match cross section range
reaction label 3: n[multiplicity:'2'] + Pa231 + gamma / Product: gamma_be / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)
- WARNING: Domain doesn't match the cross section domain: (6000000.0 -> 20000000.0) vs (5573320.0 -> 20000000.0)
118. Energy range of data set does not match cross section range
reaction label 3: n[multiplicity:'2'] + Pa231 + gamma / Product: gamma_bf / Multiplicity: (Error # 0): Domain mismatch (a)
- WARNING: Domain doesn't match the cross section domain: (6000000.0 -> 20000000.0) vs (5573320.0 -> 20000000.0)
119. Energy range of data set does not match cross section range
reaction label 3: n[multiplicity:'2'] + Pa231 + gamma / Product: gamma_bf / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)
- WARNING: Domain doesn't match the cross section domain: (6000000.0 -> 20000000.0) vs (5573320.0 -> 20000000.0)
120. Energy range of data set does not match cross section range
reaction label 3: n[multiplicity:'2'] + Pa231 + gamma / Product: gamma_bg / Multiplicity: (Error # 0): Domain mismatch (a)
- WARNING: Domain doesn't match the cross section domain: (6000000.0 -> 20000000.0) vs (5573320.0 -> 20000000.0)
121. Energy range of data set does not match cross section range
reaction label 3: n[multiplicity:'2'] + Pa231 + gamma / Product: gamma_bg / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)
- WARNING: Domain doesn't match the cross section domain: (6000000.0 -> 20000000.0) vs (5573320.0 -> 20000000.0)
122. Energy range of data set does not match cross section range
reaction label 3: n[multiplicity:'2'] + Pa231 + gamma / Product: gamma_bh / Multiplicity: (Error # 0): Domain mismatch (a)
- WARNING: Domain doesn't match the cross section domain: (6000000.0 -> 20000000.0) vs (5573320.0 -> 20000000.0)

123. Energy range of data set does not match cross section range
reaction label 3: n[multiplicity:'2'] + Pa231 + gamma / Product: gamma_bh / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)
- WARNING: Domain doesn't match the cross section domain: (6000000.0 -> 20000000.0) vs (5573320.0 -> 20000000.0)
124. Energy range of data set does not match cross section range
reaction label 3: n[multiplicity:'2'] + Pa231 + gamma / Product: gamma_bi / Multiplicity: (Error # 0): Domain mismatch (a)
- WARNING: Domain doesn't match the cross section domain: (6000000.0 -> 20000000.0) vs (5573320.0 -> 20000000.0)
125. Energy range of data set does not match cross section range
reaction label 3: n[multiplicity:'2'] + Pa231 + gamma / Product: gamma_bi / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)
- WARNING: Domain doesn't match the cross section domain: (6000000.0 -> 20000000.0) vs (5573320.0 -> 20000000.0)
126. Energy range of data set does not match cross section range
reaction label 3: n[multiplicity:'2'] + Pa231 + gamma / Product: gamma_bj / Multiplicity: (Error # 0): Domain mismatch (a)
- WARNING: Domain doesn't match the cross section domain: (6000000.0 -> 20000000.0) vs (5573320.0 -> 20000000.0)
127. Energy range of data set does not match cross section range
reaction label 3: n[multiplicity:'2'] + Pa231 + gamma / Product: gamma_bj / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)
- WARNING: Domain doesn't match the cross section domain: (6000000.0 -> 20000000.0) vs (5573320.0 -> 20000000.0)
128. Energy range of data set does not match cross section range
reaction label 3: n[multiplicity:'2'] + Pa231 + gamma / Product: gamma_bk / Multiplicity: (Error # 0): Domain mismatch (a)
- WARNING: Domain doesn't match the cross section domain: (6000000.0 -> 20000000.0) vs (5573320.0 -> 20000000.0)
129. Energy range of data set does not match cross section range
reaction label 3: n[multiplicity:'2'] + Pa231 + gamma / Product: gamma_bk / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)
- WARNING: Domain doesn't match the cross section domain: (6000000.0 -> 20000000.0) vs (5573320.0 -> 20000000.0)
130. Energy range of data set does not match cross section range
reaction label 3: n[multiplicity:'2'] + Pa231 + gamma / Product: gamma_bl / Multiplicity: (Error # 0): Domain mismatch (a)
- WARNING: Domain doesn't match the cross section domain: (6500000.0 -> 20000000.0) vs (5573320.0 -> 20000000.0)
131. Energy range of data set does not match cross section range
reaction label 3: n[multiplicity:'2'] + Pa231 + gamma / Product: gamma_bl / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)
- WARNING: Domain doesn't match the cross section domain: (6500000.0 -> 20000000.0) vs (5573320.0 -> 20000000.0)

132. Energy range of data set does not match cross section range
reaction label 3: n[multiplicity:'2'] + Pa231 + gamma / Product: gamma_bm / Multiplicity: (Error # 0): Domain mismatch (a)
- WARNING: Domain doesn't match the cross section domain: (6500000.0 -> 20000000.0) vs (5573320.0 -> 20000000.0)
133. Energy range of data set does not match cross section range
reaction label 3: n[multiplicity:'2'] + Pa231 + gamma / Product: gamma_bm / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)
- WARNING: Domain doesn't match the cross section domain: (6500000.0 -> 20000000.0) vs (5573320.0 -> 20000000.0)
134. Energy range of data set does not match cross section range
reaction label 3: n[multiplicity:'2'] + Pa231 + gamma / Product: gamma_bn / Multiplicity: (Error # 0): Domain mismatch (a)
- WARNING: Domain doesn't match the cross section domain: (6000000.0 -> 20000000.0) vs (5573320.0 -> 20000000.0)
135. Energy range of data set does not match cross section range
reaction label 3: n[multiplicity:'2'] + Pa231 + gamma / Product: gamma_bn / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)
- WARNING: Domain doesn't match the cross section domain: (6000000.0 -> 20000000.0) vs (5573320.0 -> 20000000.0)
136. Energy range of data set does not match cross section range
reaction label 3: n[multiplicity:'2'] + Pa231 + gamma / Product: gamma_bo / Multiplicity: (Error # 0): Domain mismatch (a)
- WARNING: Domain doesn't match the cross section domain: (6000000.0 -> 20000000.0) vs (5573320.0 -> 20000000.0)
137. Energy range of data set does not match cross section range
reaction label 3: n[multiplicity:'2'] + Pa231 + gamma / Product: gamma_bo / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)
- WARNING: Domain doesn't match the cross section domain: (6000000.0 -> 20000000.0) vs (5573320.0 -> 20000000.0)
138. Energy range of data set does not match cross section range
reaction label 3: n[multiplicity:'2'] + Pa231 + gamma / Product: gamma_bp / Multiplicity: (Error # 0): Domain mismatch (a)
- WARNING: Domain doesn't match the cross section domain: (6500000.0 -> 20000000.0) vs (5573320.0 -> 20000000.0)
139. Energy range of data set does not match cross section range
reaction label 3: n[multiplicity:'2'] + Pa231 + gamma / Product: gamma_bp / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)
- WARNING: Domain doesn't match the cross section domain: (6500000.0 -> 20000000.0) vs (5573320.0 -> 20000000.0)
140. Energy range of data set does not match cross section range
reaction label 3: n[multiplicity:'2'] + Pa231 + gamma / Product: gamma_bq / Multiplicity: (Error # 0): Domain mismatch (a)
- WARNING: Domain doesn't match the cross section domain: (6500000.0 -> 20000000.0) vs (5573320.0 -> 20000000.0)

141. Energy range of data set does not match cross section range
reaction label 3: n[multiplicity:'2'] + Pa231 + gamma / Product: gamma_bq / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)
- WARNING: Domain doesn't match the cross section domain: (6500000.0 -> 20000000.0) vs (5573320.0 -> 20000000.0)
142. Energy range of data set does not match cross section range
reaction label 3: n[multiplicity:'2'] + Pa231 + gamma / Product: gamma_br / Multiplicity: (Error # 0): Domain mismatch (a)
- WARNING: Domain doesn't match the cross section domain: (6000000.0 -> 20000000.0) vs (5573320.0 -> 20000000.0)
143. Energy range of data set does not match cross section range
reaction label 3: n[multiplicity:'2'] + Pa231 + gamma / Product: gamma_br / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)
- WARNING: Domain doesn't match the cross section domain: (6000000.0 -> 20000000.0) vs (5573320.0 -> 20000000.0)
144. Energy range of data set does not match cross section range
reaction label 3: n[multiplicity:'2'] + Pa231 + gamma / Product: gamma_bs / Multiplicity: (Error # 0): Domain mismatch (a)
- WARNING: Domain doesn't match the cross section domain: (6500000.0 -> 20000000.0) vs (5573320.0 -> 20000000.0)
145. Energy range of data set does not match cross section range
reaction label 3: n[multiplicity:'2'] + Pa231 + gamma / Product: gamma_bs / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)
- WARNING: Domain doesn't match the cross section domain: (6500000.0 -> 20000000.0) vs (5573320.0 -> 20000000.0)
146. Energy range of data set does not match cross section range
reaction label 3: n[multiplicity:'2'] + Pa231 + gamma / Product: gamma_bt / Multiplicity: (Error # 0): Domain mismatch (a)
- WARNING: Domain doesn't match the cross section domain: (6000000.0 -> 20000000.0) vs (5573320.0 -> 20000000.0)
147. Energy range of data set does not match cross section range
reaction label 3: n[multiplicity:'2'] + Pa231 + gamma / Product: gamma_bt / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)
- WARNING: Domain doesn't match the cross section domain: (6000000.0 -> 20000000.0) vs (5573320.0 -> 20000000.0)
148. Energy range of data set does not match cross section range
reaction label 3: n[multiplicity:'2'] + Pa231 + gamma / Product: gamma_bu / Multiplicity: (Error # 0): Domain mismatch (a)
- WARNING: Domain doesn't match the cross section domain: (6000000.0 -> 20000000.0) vs (5573320.0 -> 20000000.0)
149. Energy range of data set does not match cross section range
reaction label 3: n[multiplicity:'2'] + Pa231 + gamma / Product: gamma_bu / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)
- WARNING: Domain doesn't match the cross section domain: (6000000.0 -> 20000000.0) vs (5573320.0 -> 20000000.0)

150. Energy range of data set does not match cross section range
reaction label 3: n[multiplicity:'2'] + Pa231 + gamma / Product: gamma_bv / Multiplicity: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (6000000.0 -> 20000000.0) vs (5573320.0 -> 20000000.0)

151. Energy range of data set does not match cross section range
reaction label 3: n[multiplicity:'2'] + Pa231 + gamma / Product: gamma_bv / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (6000000.0 -> 20000000.0) vs (5573320.0 -> 20000000.0)

152. Energy range of data set does not match cross section range
reaction label 3: n[multiplicity:'2'] + Pa231 + gamma / Product: gamma_bw / Multiplicity: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (6000000.0 -> 20000000.0) vs (5573320.0 -> 20000000.0)

153. Energy range of data set does not match cross section range
reaction label 3: n[multiplicity:'2'] + Pa231 + gamma / Product: gamma_bw / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (6000000.0 -> 20000000.0) vs (5573320.0 -> 20000000.0)

154. Energy range of data set does not match cross section range
reaction label 3: n[multiplicity:'2'] + Pa231 + gamma / Product: gamma_bx / Multiplicity: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (6000000.0 -> 20000000.0) vs (5573320.0 -> 20000000.0)

155. Energy range of data set does not match cross section range
reaction label 3: n[multiplicity:'2'] + Pa231 + gamma / Product: gamma_bx / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (6000000.0 -> 20000000.0) vs (5573320.0 -> 20000000.0)

156. Energy range of data set does not match cross section range
reaction label 3: n[multiplicity:'2'] + Pa231 + gamma / Product: gamma_by / Multiplicity: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (6500000.0 -> 20000000.0) vs (5573320.0 -> 20000000.0)

157. Energy range of data set does not match cross section range
reaction label 3: n[multiplicity:'2'] + Pa231 + gamma / Product: gamma_by / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (6500000.0 -> 20000000.0) vs (5573320.0 -> 20000000.0)

158. Calculated and tabulated Q values disagree.
reaction label 4: n[multiplicity:'3'] + Pa230 + gamma (Error # 0): Q mismatch

WARNING: Calculated and tabulated Q-values disagree: -12621785.38922119 eV vs -1.23693e7 eV!

159. Energy range of data set does not match cross section range
reaction label 4: n[multiplicity:'3'] + Pa230 + gamma / Product: gamma_a / Multiplicity: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (13000000.0 -> 20000000.0) vs (12423100.0 -> 20000000.0)

160. Energy range of data set does not match cross section range
reaction label 4: n[multiplicity:'3'] + Pa230 + gamma / Product: gamma_a / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (13000000.0 -> 20000000.0) vs (12423100.0 -> 20000000.0)

161. Calculated and tabulated Q values disagree.
reaction label 5: n[multiplicity:'4'] + Pa229 + gamma (Error # 0): Q mismatch

WARNING: Calculated and tabulated Q-values disagree: -18416567.69613647 eV vs -1.81641e7 eV!

162. Energy range of data set does not match cross section range
reaction label 5: n[multiplicity:'4'] + Pa229 + gamma / Product: gamma_a / Multiplicity: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (19000000.0 -> 20000000.0) vs (18243000.0 -> 20000000.0)

163. Energy range of data set does not match cross section range
reaction label 5: n[multiplicity:'4'] + Pa229 + gamma / Product: gamma_a / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (19000000.0 -> 20000000.0) vs (18243000.0 -> 20000000.0)

164. Energy range of data set does not match cross section range
reaction label 5: n[multiplicity:'4'] + Pa229 + gamma / Product: gamma_b / Multiplicity: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (19000000.0 -> 20000000.0) vs (18243000.0 -> 20000000.0)

165. Energy range of data set does not match cross section range
reaction label 5: n[multiplicity:'4'] + Pa229 + gamma / Product: gamma_b / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (19000000.0 -> 20000000.0) vs (18243000.0 -> 20000000.0)

166. Energy range of data set does not match cross section range
reaction label 5: n[multiplicity:'4'] + Pa229 + gamma / Product: gamma_c / Multiplicity: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (19000000.0 -> 20000000.0) vs (18243000.0 -> 20000000.0)

167. Energy range of data set does not match cross section range
reaction label 5: n[multiplicity:'4'] + Pa229 + gamma / Product: gamma_c / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (19000000.0 -> 20000000.0) vs (18243000.0 -> 20000000.0)

168. Energy range of data set does not match cross section range
reaction label 5: n[multiplicity:'4'] + Pa229 + gamma / Product: gamma_d / Multiplicity: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (19000000.0 -> 20000000.0) vs (18243000.0 -> 20000000.0)

169. Energy range of data set does not match cross section range
reaction label 5: n[multiplicity:'4'] + Pa229 + gamma / Product: gamma_d / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (19000000.0 -> 20000000.0) vs (18243000.0 -> 20000000.0)

170. Energy range of data set does not match cross section range
reaction label 5: n[multiplicity:'4'] + Pa229 + gamma / Product: gamma_e / Multiplicity: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (19000000.0 -> 20000000.0) vs (18243000.0 -> 20000000.0)

171. Energy range of data set does not match cross section range
reaction label 5: n[multiplicity:'4'] + Pa229 + gamma / Product: gamma_e / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (19000000.0 -> 20000000.0) vs (18243000.0 -> 20000000.0)

172. Energy range of data set does not match cross section range
reaction label 5: n[multiplicity:'4'] + Pa229 + gamma / Product: gamma_f / Multiplicity: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (19000000.0 -> 20000000.0) vs (18243000.0 -> 20000000.0)

173. Energy range of data set does not match cross section range
reaction label 5: n[multiplicity:'4'] + Pa229 + gamma / Product: gamma_f / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (19000000.0 -> 20000000.0) vs (18243000.0 -> 20000000.0)

174. Energy range of data set does not match cross section range
reaction label 5: n[multiplicity:'4'] + Pa229 + gamma / Product: gamma_g / Multiplicity: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (19000000.0 -> 20000000.0) vs (18243000.0 -> 20000000.0)

175. Energy range of data set does not match cross section range
reaction label 5: n[multiplicity:'4'] + Pa229 + gamma / Product: gamma_g / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (19000000.0 -> 20000000.0) vs (18243000.0 -> 20000000.0)

176. Energy range of data set does not match cross section range
reaction label 5: n[multiplicity:'4'] + Pa229 + gamma / Product: gamma_h / Multiplicity: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (19000000.0 -> 20000000.0) vs (18243000.0 -> 20000000.0)

177. Energy range of data set does not match cross section range
reaction label 5: n[multiplicity:'4'] + Pa229 + gamma / Product: gamma_h / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (19000000.0 -> 20000000.0) vs (18243000.0 -> 20000000.0)

178. Energy range of data set does not match cross section range
reaction label 5: n[multiplicity:'4'] + Pa229 + gamma / Product: gamma_i / Multiplicity: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (19000000.0 -> 20000000.0) vs (18243000.0 -> 20000000.0)

179. Energy range of data set does not match cross section range
reaction label 5: n[multiplicity:'4'] + Pa229 + gamma / Product: gamma_i / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (19000000.0 -> 20000000.0) vs (18243000.0 -> 20000000.0)

180. Energy range of data set does not match cross section range
reaction label 5: n[multiplicity:'4'] + Pa229 + gamma / Product: gamma_j / Multiplicity: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (19000000.0 -> 20000000.0) vs (18243000.0 -> 20000000.0)

181. Energy range of data set does not match cross section range
reaction label 5: n[multiplicity:'4'] + Pa229 + gamma / Product: gamma_j / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (19000000.0 -> 20000000.0) vs (18243000.0 -> 20000000.0)

182. Energy range of data set does not match cross section range
reaction label 5: n[multiplicity:'4'] + Pa229 + gamma / Product: gamma_k / Multiplicity: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (19000000.0 -> 20000000.0) vs (18243000.0 -> 20000000.0)

183. Energy range of data set does not match cross section range
reaction label 5: n[multiplicity:'4'] + Pa229 + gamma / Product: gamma_k / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (19000000.0 -> 20000000.0) vs (18243000.0 -> 20000000.0)

184. Energy range of data set does not match cross section range
reaction label 5: n[multiplicity:'4'] + Pa229 + gamma / Product: gamma_l / Multiplicity: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (19000000.0 -> 20000000.0) vs (18243000.0 -> 20000000.0)

185. Energy range of data set does not match cross section range
reaction label 5: n[multiplicity:'4'] + Pa229 + gamma / Product: gamma_l / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (19000000.0 -> 20000000.0) vs (18243000.0 -> 20000000.0)

186. Calculated and tabulated Q values disagree.
reaction label 7: Pa233 + gamma (Error # 0): Q mismatch
- WARNING: Calculated and tabulated Q-values disagree: 6276574.695678711 eV vs 6529060. eV!
187. Multiplicity does not match sum of linked product multiplicities!
multiplicitySum label 4: n + (Pa232.c ->Pa232 + gamma) total gamma multiplicity (Error # 0): summedMultiplicityMismatch
- WARNING: Multiplicity does not match sum of linked product multiplicities! Max diff: 28.72%
188. Multiplicity does not match sum of linked product multiplicities!
multiplicitySum label 5: n[multiplicity:'2'] + Pa231 + gamma total gamma multiplicity (Error # 0): summedMultiplicityMismatch
- WARNING: Multiplicity does not match sum of linked product multiplicities! Max diff: 99.99%
189. Multiplicity does not match sum of linked product multiplicities!
multiplicitySum label 6: n[multiplicity:'3'] + Pa230 + gamma total gamma multiplicity (Error # 0): summedMultiplicityMismatch
- WARNING: Multiplicity does not match sum of linked product multiplicities! Max diff: 64.94%
190. Multiplicity does not match sum of linked product multiplicities!
multiplicitySum label 7: n[multiplicity:'4'] + Pa229 + gamma total gamma multiplicity (Error # 0): summedMultiplicityMismatch
- WARNING: Multiplicity does not match sum of linked product multiplicities! Max diff: 100.00%
191. Calculated and tabulated Q values disagree.
fissionComponent label 0: /reactionSuite/fissionComponents/fissionComponent[@label='0'] (Error # 0): Q mismatch
- WARNING: Calculated and tabulated Q-values disagree: 217081879621.8094 eV vs 1.851677e8 eV!
192. Calculated and tabulated Q values disagree.
fissionComponent label 1: /reactionSuite/fissionComponents/fissionComponent[@label='1'] (Error # 0): Q mismatch
- WARNING: Calculated and tabulated Q-values disagree: 217081879621.8094 eV vs 1.851677e8 eV!
193. Calculated and tabulated Q values disagree.
fissionComponent label 2: /reactionSuite/fissionComponents/fissionComponent[@label='2'] (Error # 0): Q mismatch
- WARNING: Calculated and tabulated Q-values disagree: 217081879621.8094 eV vs 1.851677e8 eV!
194. Calculated and tabulated Q values disagree.
fissionComponent label 3: /reactionSuite/fissionComponents/fissionComponent[@label='3'] (Error # 0): Q mismatch
- WARNING: Calculated and tabulated Q-values disagree: 217081879621.8094 eV vs 1.851677e8 eV!

195. A covariance matrix was not positive semi-definite, so it has negative eigenvalues.
Section 13 (n + Pa232 [angular distribution]): / Form 'eval': / LegendreLValue L=1 vs 1 (Error # 0): Bad evs

WARNING: 10 negative eigenvalues! Worst case = -1.409699e-04

• njoy2012 Warnings:

1. In some evaluations, the partial fission reactions MT=19, 20, 21, and 38 are given in File 3, but no corresponding distributions are given. In these cases, it is assumed that MT=18 should be used for the fission neutron distributions.
heatr...prompt kerma (0): HEATR/hinit (3)

---message from hinit---mt19 has no spectrum
mt18 spectrum will be used.

2. Recoil is not given, so one-particle recoil approximation used.
heatr...prompt kerma (1): HEATR/hinit (4)

---message from hinit---mf6, mt 16 does not give recoil za= 91231
one-particle recoil approx. used.

3. Recoil is not given, so one-particle recoil approximation used.
heatr...prompt kerma (2): HEATR/hinit (4)

---message from hinit---mf6, mt 17 does not give recoil za= 91230
one-particle recoil approx. used.

4. Recoil is not given, so one-particle recoil approximation used.
heatr...prompt kerma (3): HEATR/hinit (4)

---message from hinit---mf6, mt 37 does not give recoil za= 91229
one-particle recoil approx. used.

5. Recoil is not given, so one-particle recoil approximation used.
heatr...prompt kerma (4): HEATR/hinit (4)

---message from hinit---mf6, mt 51 does not give recoil za= 91232
one-particle recoil approx. used.

6. Recoil is not given, so one-particle recoil approximation used.
heatr...prompt kerma (5): HEATR/hinit (4)

---message from hinit---mf6, mt 91 does not give recoil za= 91232
one-particle recoil approx. used.

7. Recoil is not given, so one-particle recoil approximation used.
heatr...prompt kerma (6): HEATR/hinit (4)

---message from hinit---mf6, mt102 does not give recoil za= 91233
photon momentum recoil used.

8. There is a problem with the fission energy release.
heatr...prompt kerma (19): HEATR/nheat (3)

---message from nheat---changed q from 1.851677E+08 to 1.763232E+08
for mt 18